12) A process for forming a compound having a labile disulfide bond for use with an organism, comprising:

a) forming the compound having a disulfide bond selected from the group consisting of (i) a disulfide bond that is cleaved more rapidly than oxidized glutathione, and (ii) a disulfide bond constructed from thiols in which one of the constituent thiols has a lower pKa than glutathione, and (iii) a disulfide bond that is activated by intramolecular attack from a free thiol thereby forming two molecules;

b) inserting the compound into the organism.

18) The process of claim 12 wherein the disulfide-containing molecule is a bifunctional molecule.

REMARKS

Rejection of claims under 35 U.S.C. 112:

Claims 8 and 18 have been rejected under §112. The claims have been amended to obviate the rejections.

Rejection of claims under 35 U.S.C. 102:

Claims 7-14 and 18 have been rejected under §102(b) as being anticipated by Wagner et al. Applicants respectfully disagree.

The Wagner et al. reference teaches a complex that is used to transfect cultured cells. A component of the complex is transferrin which has disulfide bonds. However, the transferrin contains peptide bonds such that the cysteine amino group is acylated. Therefore, a thiol of transferrin has a pKa 0.6 greater than the thiols formed by Applicants' process.

Applicants have claimed the formation of a compound which has a disulfide bond that is cleaved more rapidly than oxidized glutathione and one of the thiols has a lower pKa than glutathione. Conversely, the Wagner et al. complex is formed by transferrin polypeptides which have the same N-acyl systems (and pKa's) as glutathione. Thus, Wagner et al. describes thiol pKa's that are the same as glutathione and does not anticipate Applicants' claims.

Applicants believe that claims 7-14 and 18 should be allowable over the cited prior art.

Rejection of claims under 35 U.S.C. 102: